

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1. (previously presented) A biopolymer marker peptide consisting of amino acid residues 2-25 of SEQ ID NO:1 diagnostic for insulin resistance.

Claims 2-35. (cancelled)

Claim 36. (previously presented) A method for diagnosing insulin resistance comprising:

- (a) obtaining a sample from a patient;
- (b) conducting mass spectrometric analysis on said sample in a manner effective to maximize elucidation of discernible peptide fragments contained therein; and
- (c) comparing mass spectrum profiles of a peptide consisting of amino acid residues 2-25 of SEQ ID NO:1 to mass spectrum profiles of peptides elucidated from said sample; wherein recognition of a mass spectrum profile in the sample displaying the characteristic profile of the mass spectrum profile for the peptide

consisting of amino acid residues 2-25 of SEQ ID NO:1 is diagnostic for insulin resistance.

Claim 37. (previously presented) The method of claim 36, wherein the sample is an unfractionated body fluid or a tissue sample.

Claim 38. (previously presented) The method of claim 36, wherein said sample is selected from the group consisting of blood, blood products, urine, saliva, cerebrospinal fluid, and lymph.

Claim 39. (previously presented) The method of claim 36, wherein said mass spectrometric analysis is Surface Enhanced Laser Desorption Ionization (SELDI) mass spectrometry (MS).

Claim 40. (previously presented) The method of claim 36, wherein said patient is a human.

Claim 41. (previously presented) An insulin resistance diagnostic kit comprising: (a) a peptide consisting of amino acid residues 2-25 of SEQ ID NO:1 and (b) an antibody that binds to said peptide in a sample from a patient.

Claim 42. (currently amended) The diagnostic ~~assay~~ kit of claim 41, wherein said antibody is immobilized on a solid support.

Claim 43. (previously presented) The diagnostic kit of claim 41, wherein said antibody is labeled.